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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/303,979 05/03/99 PEARCE T 5039P

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DANIEL P. MCCARTHY
MCCARTHY & SADLER
39 EXCHANGE PLACE
SUITE 100
SALT LAKE CITY UT 84111

EXAMINER

JONES, K

ART UNIT

PAPER NUMBER

1732

DATE MAILED:

10/04/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/303,979

Applicant(s)

Pearce

Examiner

Kenneth Jones

Group Art Unit

1732



☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-20 is/are pending in the application.

Of the above, claim(s) 1-4 and 14-20 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 5-13 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 1732

DETAILED ACTION

Information Disclosure Statement

1. The Examiner notes with appreciation Applicant has provided an information disclosure statement dated 2-29-00 citing a number of pertinent references.

The Examiner also notes that the instant application recites a number of commercially available materials, e.g. SEPTON 4045 (page 62) in the instant disclosure. Applicant is requested to supply any information available to Applicant about such materials, e.g. brochures by the suppliers of the materials.

Election/Restriction

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
- I. Claims 1-4, drawn to a process for manufacturing a gelatinous elastomer, classified in class 264, subclass 141.
 - II. Claims 5-13, drawn to a process for manufacturing a gelatinous elastomer, classified in class 524, subclass 490.
 - III. Claims 14-20, drawn to a process for manufacturing a gelatinous elastomer and shaping said gelatinous elastomer for later use in manufacturing, classified in class 525, subclass 95.
3. The inventions are distinct, each from the other because of the following reasons:

Art Unit: 1732

Groups I-III are directed to independent processes wherein patentability is being based on different combinations of features in the independent claims of each group as noted above. More important, each of these groups can be used without the other.

For example, Group I is not limited to a A-B-A triblock copolymer (which is required for Groups II and III); thus, determination of the patentability of Group I will require consideration (and search) of copolymers well beyond that which is required for the determination of the patentability of Groups II and III.

Similarly, in Group III of the A-B-A triblock copolymer, neither A nor B is limited to a hydrogenated (*sic*) polymer (which is required for Group II); thus, determination of the patentability of Group III will require consideration (and search) of copolymers well beyond that which is required for the determination of the patentability of Group II.

Presently, no claim is generic. Rejoining of these groups of invention will be considered upon the indication of allowable subject matter depending on the basis thereof.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Mr. Daniel McCarthy on Monday 8/7/00 a provisional election was made with traverse to prosecute the invention of Group II, claims 5-13. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-

Art Unit: 1732

4, 14-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 11 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 11 recites "A method as recited in claim 5 wherein a mixture including about 20 weight percent of said triblock copolymer and about 80 weight percent toluene ... does not form a solution."

The instant application does teach how to make such a polymer or copolymer; alternatively, the instant application does teach how to choose such a polymer or copolymer from commercially available polymers or copolymers.

The Examiner notes that the instant application appears to highly related to U.S. 5,994,450 to Pearce and appears to make or use the same materials as the instant application. Pearce discloses:

Claim 36. An elastomeric material as recited in claim 24, wherein a mixture including about 20 weight percent of said **triblock** copolymer and about 80 weight

Art Unit: 1732

percent toluene, the weight percentages based on the total weight of the mixture, at from about 25.degree. C. to about 30.degree. C., **does not form a solution.**

Surprisingly claim 35 of U.S. 5,994,450 to Pearce on which claim 36 depends recites:

Claim 35. An elastomeric material as recited in claim 24, wherein a mixture including about 20 weight percent of **said triblock copolymer** and about 80 weight percent toluene, the weight percentages based on the total weight of the mixture, at from about 25.degree. C. to about 30.degree. C., has a **solution viscosity** of at least about 100,000 cps.

It appears to be an inconsistency to discuss the **solution viscosity** of a triblock polymer or copolymer and yet state that the triblock polymer does not form a solution.

The instant application does not teach how to form such a triblock polymer or copolymer having the above discussed characteristics.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 5-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites (highlighting added by the Examiner):

"Wherein **A** is a hydrogenated (*sic*) polymer;

wherein said plasticizer associates with said hydrogenated polymer **B**;"

Art Unit: 1732

Note that for claim 5 as written "said hydrogenated polymer B" lacks antecedent basis. For examining purposes based on the totality of the instant disclosure, "Wherein A is a hydrogenated (*sic*) polymer" is interpreted to be --Wherein B is a hydrogenated polymer--.

Claim 5 recites

"forcing said gelatinous elastomer ... to form a gelatinous elastomer part." (note the period)

"placing gelatinous elastomer in a screw capable" (something appears to be missing)

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 1732

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 5-13 are rejected under 35 U.S.C. 102(b) as anticipated by Chen (U.S. 5,262,468) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chen (U.S. 5,262,468).

With regard to claim 5, Chen discloses a gelatinous composition is disclosed which contains an intimate melt blend admixture of poly(styrene-ethylene-butylene-styrene) **triblock** copolymer and high levels of a plasticizing oil. Chen further discloses (col 5 lines 50-55)

The instant composition is excellent for **cast moulding** and the moulded products have various excellent characteristics which cannot be anticipated from the properties of the raw components. **Other conventional methods of forming the composition can be utilized.**

To the extent that poly(styrene-ethylene-butylene-styrene) triblock copolymer does not have a hydrogenated B portion, ethylene-butylene copolymer is very structurally similar to the instantly disclosed hydrogenated poly(isoprene+butadiene) B portion that the copolymer are practically homologous or alternatively are well known alternatives.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Chen's method by using polystyrene-hydrogenated poly(isoprene+butadiene)-polystyrene copolymer in place of Chen's poly(styrene-ethylene-butylene-styrene) triblock copolymer since such copolymers are well known alternatives in this art for forming molded articles.

With regard to claims 7-9, Chen further discloses (col 4 lines 10-35) (highlighting added by the Examiner):

Art Unit: 1732

Plasticizers particularly preferred for use in practicing the present invention are well known in the art, they include rubber processing oil such as paraffinic and naphthenic petroleum oils, highly refined aromatic-free paraffinic and naphthenic food and technical grade white petroleum mineral oils, and synthetic liquid oligomers of polybutene, polypropene, polyterpene, etc. The synthetic series process oils are high viscosity oligomers which are permanently fluid liquid nonolefins, isoparaffins or paraffins of moderate to high molecular weight. Many such oils are known and commercially available. Examples of representative commercially oils include Amoco polybutenes, **hydrogenated polybutenes and polybutenes** with epoxide functionality at one end of the polybutene polymer: Example of such polybutenes include: L-14 (320 M.sub.n), L-50 (420 M.sub.n), L-100 (460 M.sub.n), H-15 (560 M.sub.n), H-25 (610 M.sub.n), H-35 (660 M.sub.n), H-50 (750 M.sub.n), H-100 (920 M.sub.n), H-300 (1290 M.sub.n), L-14E (27-37 cst @ 100.degree. F. Viscosity), L-300E (635-690 cst @ 210.degree. F. Viscosity), Actipol E6 (365 M.sub.n), E16 (973 M.sub.n), E23 (1433 M.sub.n) and the like. Examples of various commercially oils include: ARCO Prime and Tufflo oils, other white mineral oils include: Bayol, Bernol, American, Blandol, Drakeol, Ervol, Gloria, Kaydol, Litetek, Marcol, Parol, Penetec, Primol, Protol, Sontex, and the like.

With regard to claims 6, 10-11, Chen further discloses (col 3 lines 26-30):

The high viscosity **triblock** copolymers in (A) which are suitable for use in the present invention has a typical Brookfield Viscosity of a 20 weight percent solids solution in toluene at 25°C. of not less than about 1,800 cps, and preferably about 2,000 cps or higher. **Typically, the Brookfield Viscosity values of (A) can range from about 1,800 cps to about 16,000 cps. Less typically, the Brookfield Viscosity values of (A) can range from about 1,800 cps to about 30,000 cps or higher.**

Such characteristics are comparable the materials disclosed in the instant disclosure. While such does not explicitly disclose a molecular weight of at least about 300,000, since the materials are the same or comparable as those disclosed in the instant application, the molecular weights must the same or comparable. Alternatively, even if the molecular weights of all of the materials

Art Unit: 1732

explicitly disclosed by Chen are less than at least about 300,000, Chen explicitly discloses (cited above) **"Less typically, the Brookfield Viscosity values of (A) can range from about 1,800 cps to about 30,000 cps or higher."** It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Chen's explicitly disclosed method by using commercially available triblock copolymer resins having a molecular weight of at least about 300,000 or a solution viscosity of about 100,000 cps since such materials are commercially available and well known to be suitable for the applications disclosed by Chen.

With regard to claims 12-13, Chen discloses (Examples II and XXI):

EXAMPLE II

One hundred parts by weight of a high viscosity poly(styrene-ethylene-butylene-styrene) triblock copolymer (Shell Kraton G 1651) having a styrene end block to ethylene and butylene center block ratio of about 33:67 with 0.1 parts by weight of a stabilizer (Irganox 1010) was melt blended with various quantities of a naphthenic oil (ARCO Tufflo 6024). **Samples having the dimensions of 5 cm x 5 cm x 3 cm** were cut and measured for gel rigidity on a modified Bloom gelometer

EXAMPLE XXI

The composition of EXAMPLE II is formed into wheels for a motorized and a free rolling vehicle capable of ascending or descending on a substantially glass, metal, and gloss painted inclined surface (greater than about 45 degree angle). It is contemplated that the **non-adhesive tack nature** of the composition may be useful as wheels or traction material for a vehicle capable of roving on the internal or external surfaces of a space ship or a space station under zero gravity conditions.

The Examiner notes that samples having the dimensions of 5 cm x 5 cm x 3 cm may be considered pellets. However, in all fairness, forming "real" pellets from the materials disclosed by

Art Unit: 1732

Chen is well known. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Chen's process by forming pellets of the blended polymer and oil since such procedure is generally practiced for the convenience of having material ready to go form molding operations.

Double Patenting

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 5-13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-71 of U.S. Patent No. 5,994,450. Although the conflicting claims are not identical, they are not patentably distinct from each other because the though the sets of claims are not identical, they contain much of the same subject matter such that only minor differences are present (differences which in the opinion of the Examiner would be obvious to one having ordinary skill in the art at the time of the invention).

However, a more substantial difference is that U.S. Patent No. 5,994,450 (Pearce) does not disclose forming pellets. It would have been obvious to one having ordinary skill in the art at

Art Unit: 1732

the time of the invention to modify Pearce's process by forming pellets of the blended polymer and oil since such procedure is generally practiced for the convenience of having material ready to go form molding operations.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

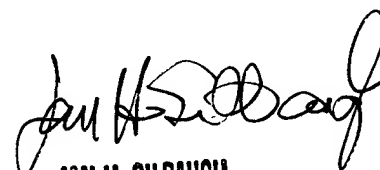
Lee, Jr. (U.S. 5,397,822) is cited of interest for its teachings forming a thermoplastic resin composition having in admixture a polyphenylene ether resin and an elastomeric block copolymer wherein the block copolymer has in admixture a triblock copolymer A-B-A'. Lee, Jr. also teaching forming pellets from the thermoplastic resin composition.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth M. Jones whose telephone number is (703) 305-6429. For more prompt consideration of amendments, etc. it is suggested that Applicants fax their responses directly to the Art Unit for consideration. The fax number for formal papers for art unit 1732 is (703) 305-7718. The fax number for informal papers to the Examiner is (703) 305-7115 (please call the Examiner to inform him that the FAX is being sent).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.



Kenneth M. Jones
September 29, 2000



JAN H. SILBAUGH
SUPERVISORY PATENT EXAMINER
ART UNIT 1732
09/29/00